

REMARKS/ARGUMENTS

The Applicant has carefully considered this application in connection with the Examiner's Action and respectfully requests reconsideration of this application in view of the foregoing amendment and the following remarks.

The Applicant originally submitted Claims 1-28 in the application. In response to a previous restriction requirement, the Applicants elected Group II, consisting of Claims 10-22. Accordingly, Claims 1-9 and 23-28 have been canceled without prejudice or disclaimer in response to the Examiner's election requirement. Currently, the Applicant has amended Claim 10 and canceled Claim 14 without prejudice or disclaimer. No other claims have been amended, canceled nor added. Accordingly, Claims 10-13 and 15-22 are currently pending in the application.

I. Rejection of Claims 10-22 under 35 U.S.C. §103

The Examiner has rejected Claims 10-22 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,593,173 to Anc, *et al.* ("Anc") in view of U.S. Patent No. 6,395,621 to Mizushima, *et al.* ("Miz"). Independent Claim 10 currently includes the element of forming a gate structure over the substrate having the precipitate region therein, the precipitate region being noncontinuous. (The Examiner should note that the noncontinuous element currently included within Claim 10 was originally within Claim 14, thus its inclusion does not require a new search).

Each of Anc and Miz fails to teach or suggest this element, thus the combination must also fail to teach or suggest this element.

Anc is directed to a low defect density, thin-layer, SOI substrate. (Title). Anc discloses that a substrate **10** may be subjected to an oxygen ion beam or beams **12** of sufficient energy such that the ions are embedded in the substrate **10** to form a precursor layer **14** having precipitates **18** of SiO_x embedded therein. (Column 3, lines 60-67). Anc further requires that the substrate **10** is then subjected to a high temperature annealing protocol in an inert atmosphere, the annealing step redistributing "the implanted oxygen ions and chemically bonding them to silicon to form a continuous buried layer **22** of silicon dioxide (SiO₂).". (See Anc at column 4, lines 45-55). Because Anc's implanted oxygen ions that form the precipitates **18** must be redistributed to form a continuous buried layer **22** of silicon dioxide before forming a gate structure thereover, Anc does not teach or suggest forming a gate structure over the substrate having the precipitate region therein, the precipitate region being noncontinuous, as is presently claimed. Accordingly, Anc fails to teach or suggest this element.

Miz further fails to teach or suggest this claimed element. The Examiner is offering Miz for the sole proposition that oxygen precipitate regions may be used with and applied to SiGe layers formed on silicon substrates. However, a teaching or suggestion that oxygen precipitate regions may be used with and applied to SiGe layers formed on silicon substrates is very different from a teaching of suggestion of forming a gate structure over the substrate having the precipitate region therein, as is presently claimed. Accordingly, Miz also fails to teach or suggest this claimed element.

Therefore, Anc, individually or in combination with Miz, fails to teach or suggest the invention recited in independent Claim 10 and its dependent claims, when considered as a whole.

Accordingly, the references fail to establish a prima facie case of obviousness. Claims 10-22 are therefore not obvious in view of the references.

In view of the foregoing remarks, the cited references do not support the Examiner's rejection of Claims 10-22 under 35 U.S.C. §103(a). The Applicant therefore respectfully requests the Examiner withdraw the rejection.

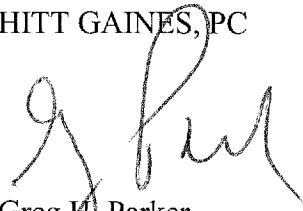
II. Conclusion

In view of the foregoing amendment and remarks, the Applicant now sees all of the Claims currently pending in this application to be in condition for allowance and therefore earnestly solicits a Notice of Allowance for Claims 10-13 and 15-22.

The Applicant requests the Examiner to telephone the undersigned attorney of record at (972) 480-8800 if such would further or expedite the prosecution of the present application. The Commissioner is hereby authorized to charge any fees, credits or overpayments to Deposit Account 20-0668.

Respectfully submitted,

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